

REMARKS

Claims in the Application. Claims 1, 2, 6 and 14 have been amended. Claim 24 has been cancelled from this application. Accordingly, Claims 1-23 and 25 are active in this application.

Examiner's Rejection over *Pounds*. The Examiner has rejected Claims 1, 5-6, 8-14 and 17-23 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,462,721 ("*Pounds*"). The rejection is traversed.

The claims of Applicants recite a "scavenging effective amount" of a scavenger selected from four groups. The Examiner relies upon *Pounds* for the alleged teaching of a 1,3,5-trisalkanylamino hexahydro-1,3,5-triazine derivative as well as an aliphatic or aromatic polyamine (or monoethanolamine) as a scavenger. Applicants have consistently argued that *Pounds* does not disclose the claimed invention. The Examiner is respectfully requested to address the arguments raised by Applicants. To date, the Examiner has not provided a reason as to why Applicants' remarks are not persuasive.

The Examiner, in the instant rejection, again states that *Pounds* discloses the use of monoethanolamines and/or polyamines as a hydrogen scavenger. However, the Examiner has not provided any basis upon which his position can be understood. Of the rejected claims, only Claims 9, 17 and 21-23 recite a monoethanolamine in the treatment of a liquid or gaseous stream to scavenge hydrogen sulfide and/or mercaptans.

In any event, *Pounds* discloses the use of a *reaction product* of a polyamine (or monoethanolamine) and an aldehyde, not the use of a polyamine (or monoethanolamine) as hydrogen scavenger. *Pounds* does not disclose a process for scavenging hydrogen sulfide and/or mercaptans from a liquid or gaseous stream with a scavenging effective amount of a polyamine.

In the Amendment Accompanying Request for Continued Examination, 37 CFR 1.114 ("AARCE"), Applicants presented the reaction schematic of a polyamine (or monoethanolamine) and an aldehyde. Since the reaction product of *Pounds* is described as being "stoichiometrically balanced" (col. 5, ll. 41-44); no free polyamine or aldehyde would remain. In any event, a "scavenging effective amount" of polyamine (or monoethanolamine) would not be present in *Pounds*. The Examiner is respectfully requested to state the portion of *Pounds* upon which he relies for the conclusion that *Pounds* discloses the use of a polyamine and/or monoethanolamine as a hydrogen sulfide scavenger.

Further, as discussed in the AARCE, the Examiner has provided no basis for the rejection of Claims 5 (morpholine bottoms) and 6 (amine oxide) over *Pounds*. *Pounds* does not disclose morpholine bottoms or amine oxide as a hydrogen scavenger. Even if *Pounds* discloses the use of monoethanolamines as hydrogen scavengers, which it does not, monoethanolamines are not amine oxides.

The Examiner further states that *Pounds* discloses the use of triazines referencing, for example, the discussion of the prior art in *Pounds*. The claims of Applicants are specifically directed to 1,3,5-trisalkanylamino hexahydro-1,3,5-triazine derivatives. Such derivatives are neither taught nor suggested in *Pounds*.

In summary, since *Pounds* does not disclose the use of monoethanolamines or polyamines as a hydrogen scavenger but rather the *reaction product* of an aldehyde with a polyamine (or monoethanolamine) and further does not disclose Applicants' claimed triazine derivatives, the rejection of the claims over *Pounds* should not be maintained. Reconsideration is therefore respectfully requested.

Examiner's Rejection Over Warrender. The Examiner has further rejected Claims 1, 5-6, 8-14 and 17-23 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(1) as obvious over U.S. Patent No. 6,267,938 ("*Warrender*"). This ground for rejection is also traversed.

The Examiner has provided no explanation as to why the arguments made in the AARCE relating to *Warrender* are non-persuasive. Instead, the Examiner has merely verbatim restated the basis of rejection over *Warrender* that was previously made.

As stated in the AARCE, *Warrender*, like *Pounds*, discloses the use of *reaction products* of an aldehyde. Specifically, the reaction products of *Warrender* are an aldehyde and an aminoethylpiperazine with an "enhancing" amine. The Examiner relies upon col. 7, ll. 26-48 of *Warrender* to support the rejection. This passage is directed to the use of alkanolamines and polyamines as "enhancing amines" (or "second amine"). As such, *Warrender* is a mere restatement of *Pounds*, discussed *supra*. Table 2, previously also relied upon by the Examiner, recites the use of aminoethylmorpholine as the "enhancing" amine. (Table 2 does not disclose polyamines.) According to col. 3, ll. 49-64, the second amine, like the first amine, *reacts with* the aldehyde. (See, col. 2, ll. 46-48.) Thus, *Warrender* does not disclose the hydrogen sulfide

scavengers disclosed by Applicants for use in the treatment of scavenging hydrogen sulfide and/or mercaptans. Thus, the claimed method of Applicants is not anticipated by *Warrender*.

Further, the rejection of Claims 5 (morpholine) and 6 (amine oxide) is not understood since neither morpholine nor amine oxide is referenced in *Warrender*. Neither is the rejection of Claim 21 over *Warrender* understood because Claim 21 is directed to a method for scavenging mercaptans. *Warrender* is directed to a method of scavenging hydrogen sulfide and organic sulfides, not mercaptans.

Examiner's Rejection Over Oakes. The Examiner also rejected Claims 1, 5-6, 8-14 and 17-23 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 4,452,764 ("*Oakes*"). The Examiner's rejection of the claims over *Oakes* continues to be not understood and is therefore traversed.

None of Claims 1, 5-6, 10-14, 18-20 are even remotely disclosed in *Oakes*. *Oakes*, at best, discloses inhibitors effective in alkanolamines. *Oakes* makes no reference to triazines, nitrogen heterocyclic compounds, amine oxides or polyamines. Claims 1, 5-6, 10-14 and 18-20 do not recite an alkanolamine. The Examiner states that *Oakes* discloses the use of a polyamine; however, no such disclosure is apparent in *Oakes*.

Further, *Oakes* does not disclose the invention of Applicants defined in Claims 21-23. Alkanolamines are recited only in Applicants' Claims 8-9, 17, 21 and 23. Claims 8, 9 and 17 are dependent on Claims 21, 21 and 23, respectively. Claim 21 references the scavenging of mercaptans. *Oakes* does not disclose treatment of mercaptans, only hydrogen sulfide. Claim 23 is directed to a liquid stream. *Oakes* is only directed to the treatment of gaseous streams.

The Examiner is therefore respectfully requested to withdraw the rejection.

Examiner's Rejection Over WO 92/01481. The Examiner has further rejected Claim 24 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over WO 92/01481 ("*WO '481*"). The cancellation of Claim 24 obviates the need for further discussion of this rejection.

Examiner's Rejection Over Landeck. The Examiner has further rejected Claim 25 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,413,627 ("*Landeck*"). This ground for rejection is also traversed.

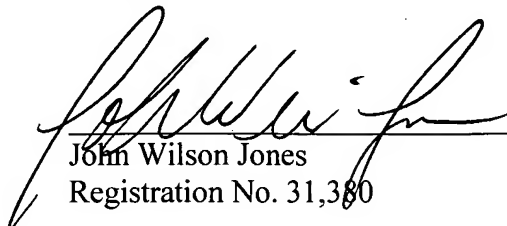
The Examiner relies upon col. 4, ll. 64-68 and states that *Landeck* discloses heterocyclic compounds "comprising 2 nitrogen heteroatoms designated as 1,2 or 1,3-diazines. Claim 25 is

directed to a 1,4-nitrogen heterocyclic compound. Further, the compound disclosed in Claim 25 wherein R⁸ is an aminoalkyl group is not disclosed in *Landeck*. The Examiner is therefore respectfully requested to withdraw the rejection of Claim 25 over *Landeck*.

Conclusion. The Examiner is encouraged to telephone the undersigned in order to expedite the prosecution of this application. It is believed that the claims to the amendments and the remarks expressed herein put this application in condition for allowance. Early notice to that effect is earnestly solicited.

Respectfully submitted,

Dated: December 4, 2006

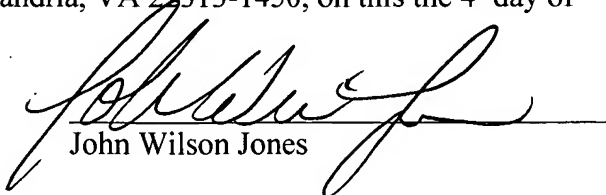

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CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. 1.8(a)

I hereby certify that this correspondence is being mailed by first class mail, addressed to Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on this the 4th day of December 2006.

December 4, 2006


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